

### **Amendments to the Figures**

The attached sheet of figures includes changes to Figure 1. Duplicate element labeling has been corrected. Marked changes to Figure 1 and a full set of formal figures are attached.

Attachment: Annotated Sheet Showing Changes  
Formal Figures

# Replacement Sheet

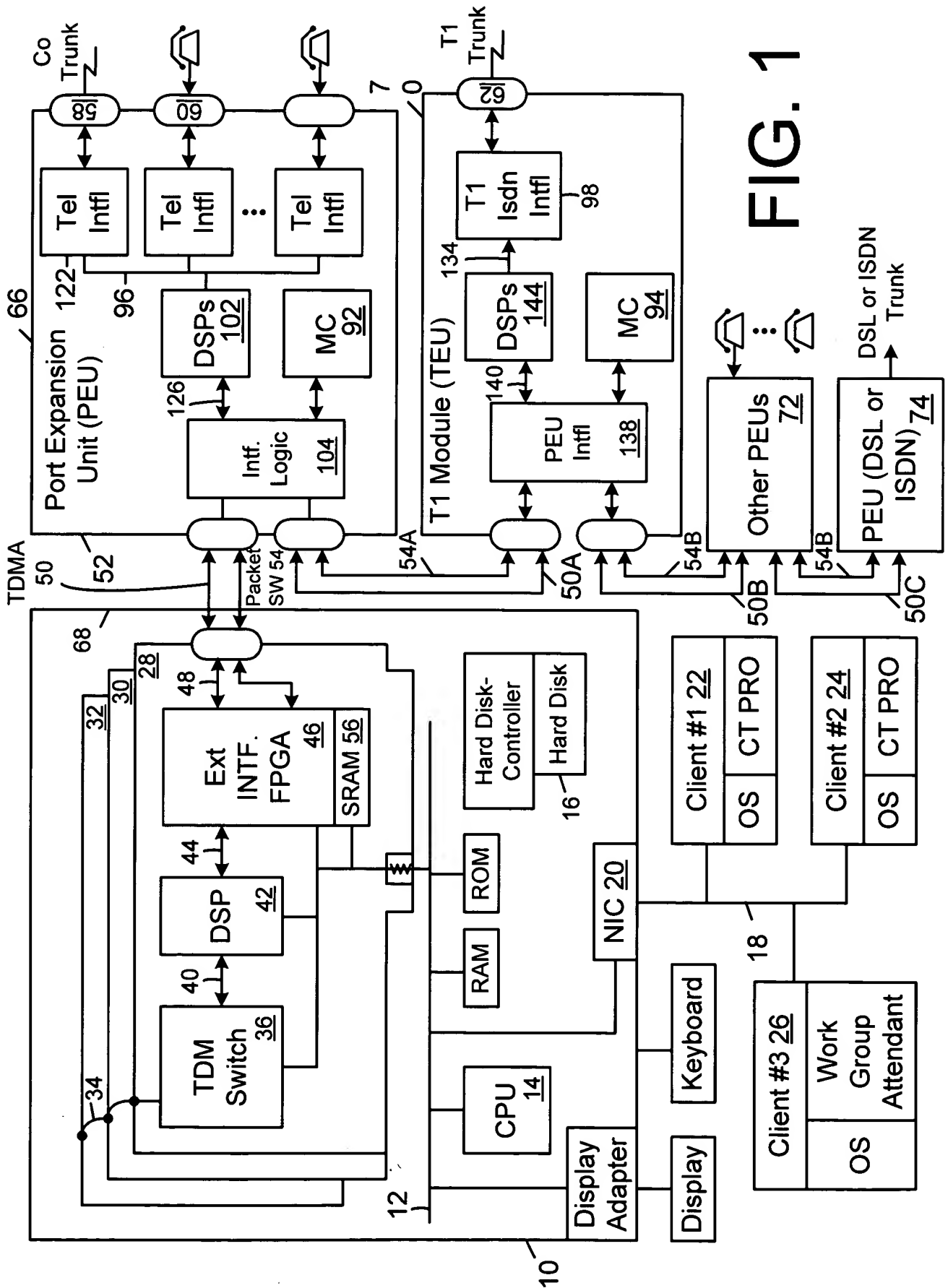
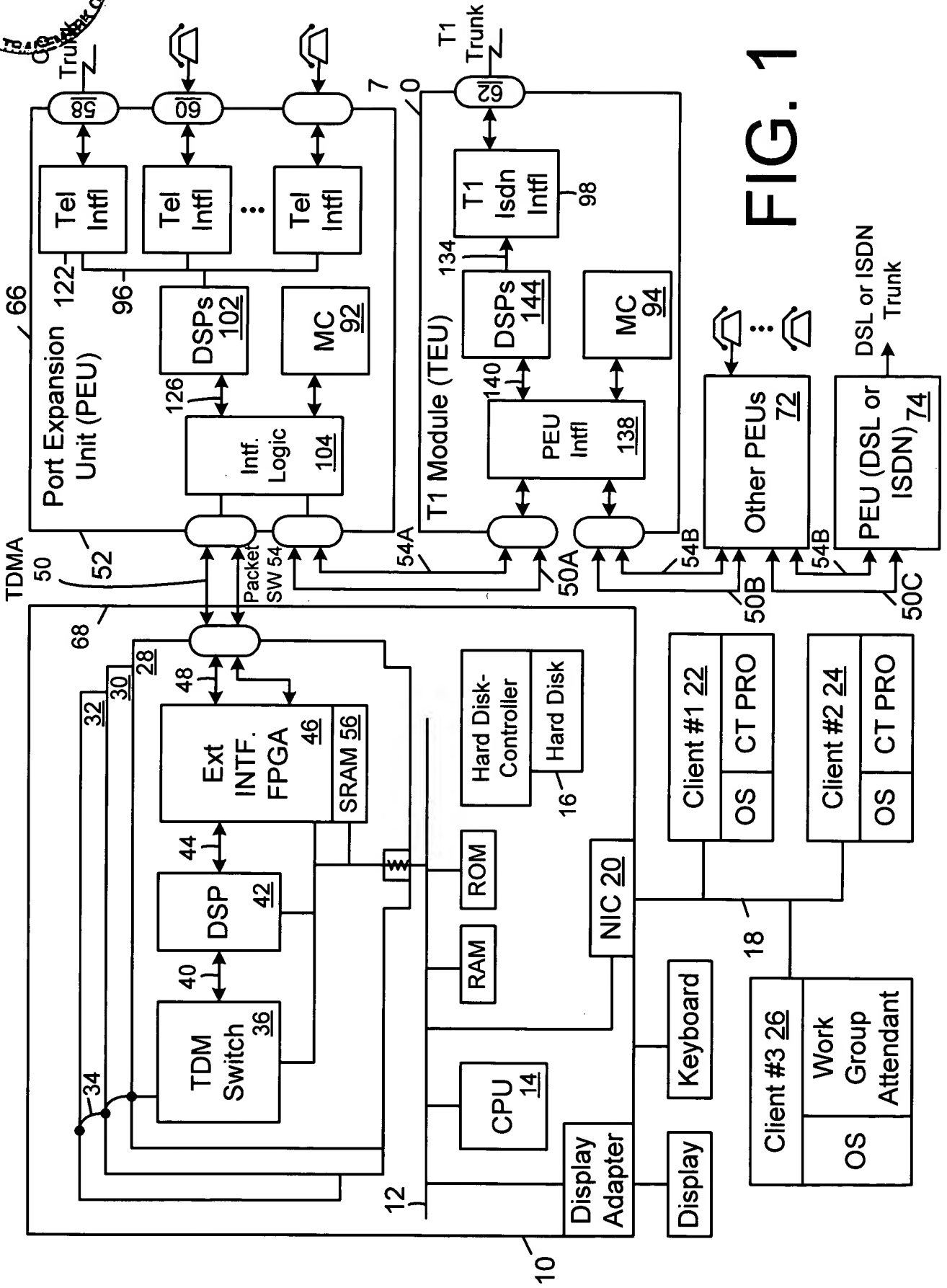
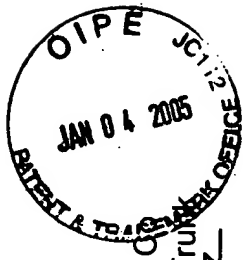


FIG. 1



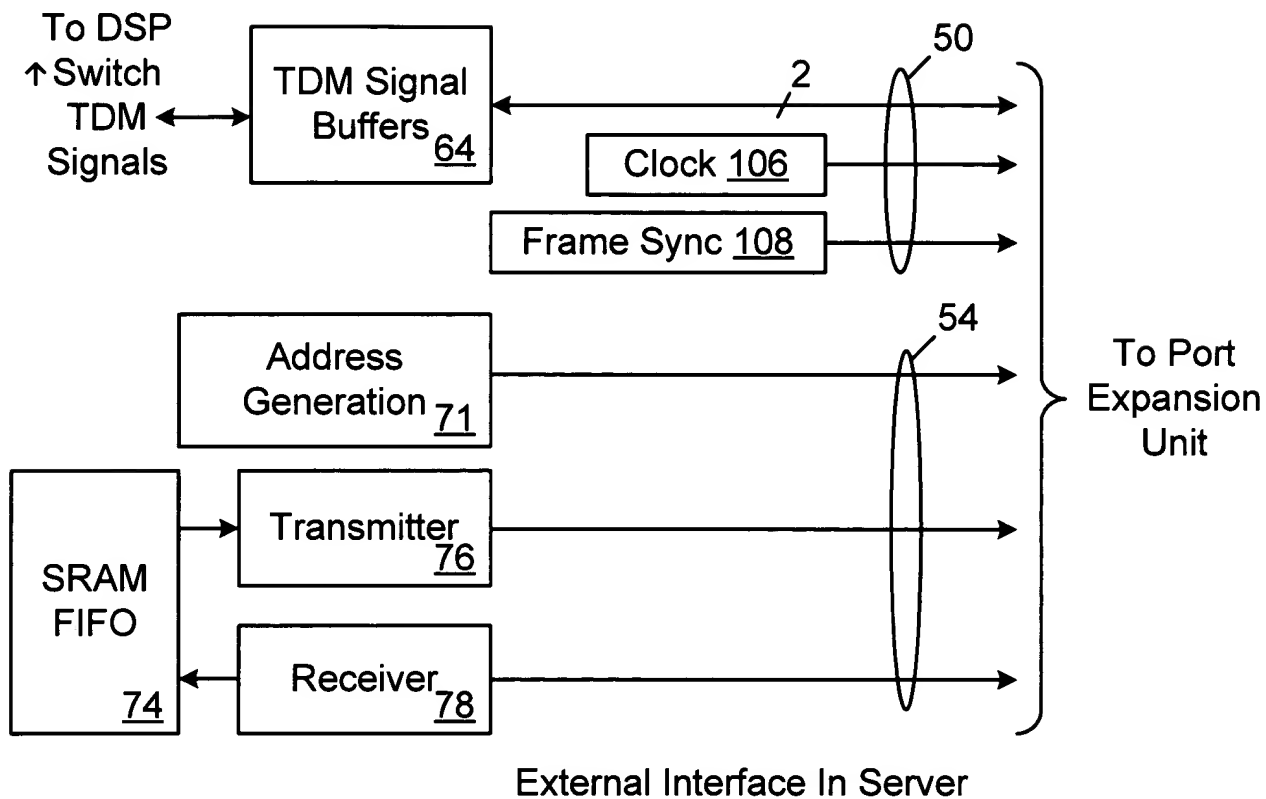


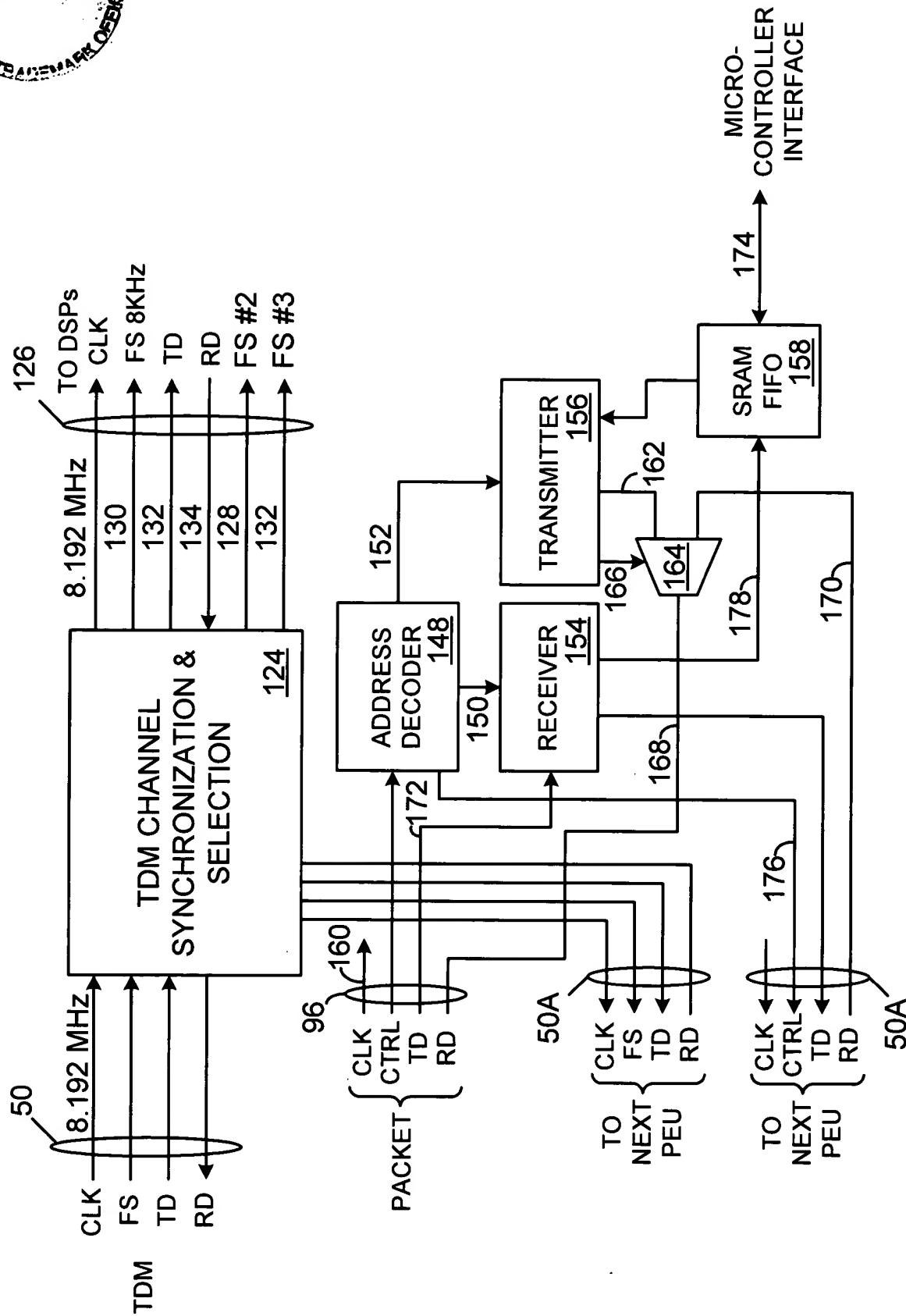
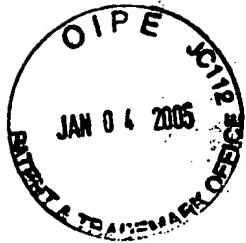
FIG. 2



FIG. 3



FIG. 4



PORT EXPANSION UNIT  
INTERFACE

# FIG. 5

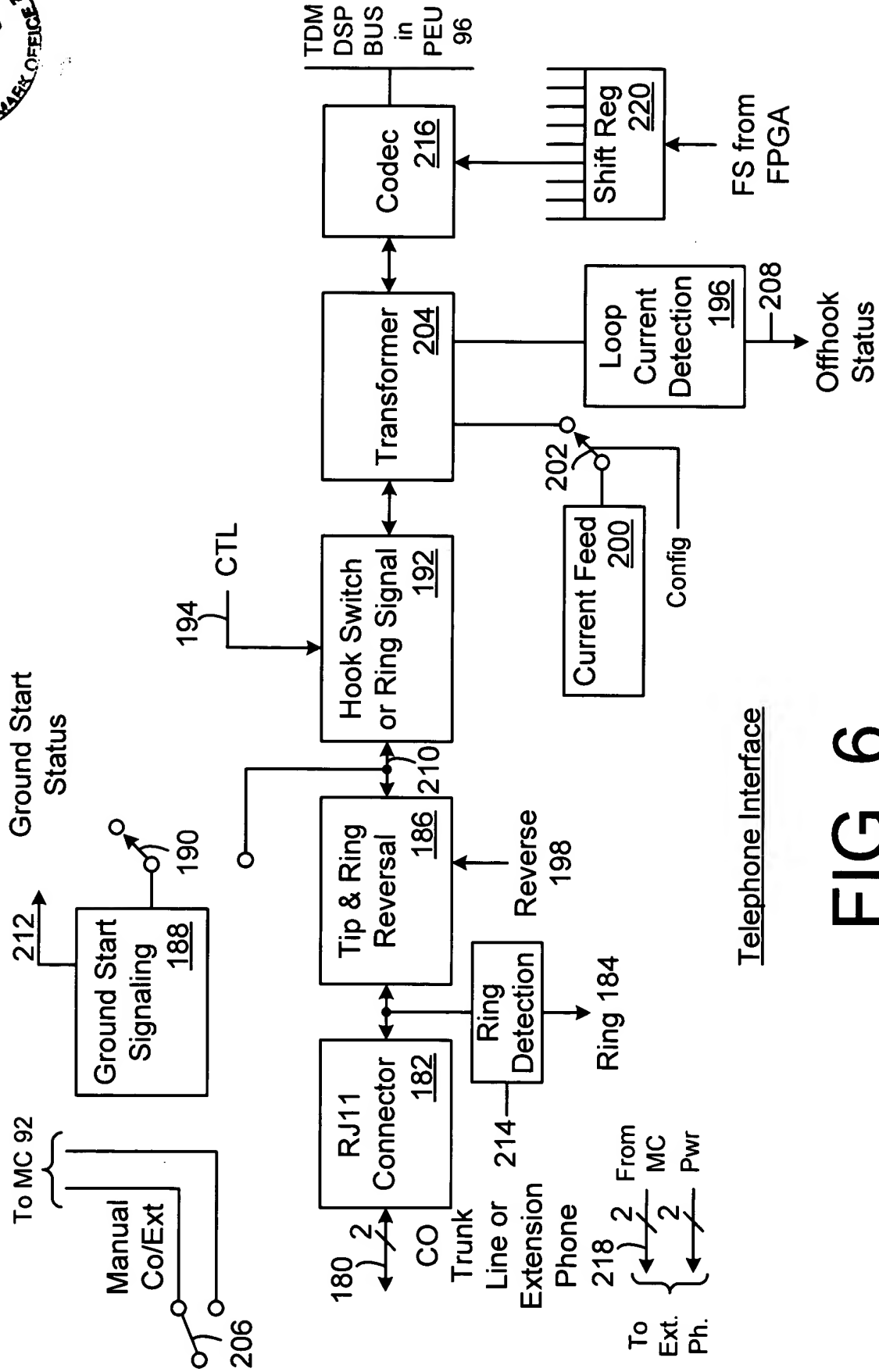
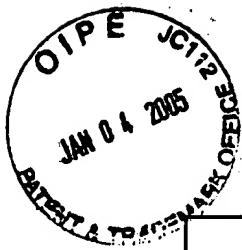


FIG. 6



## PEU Processing

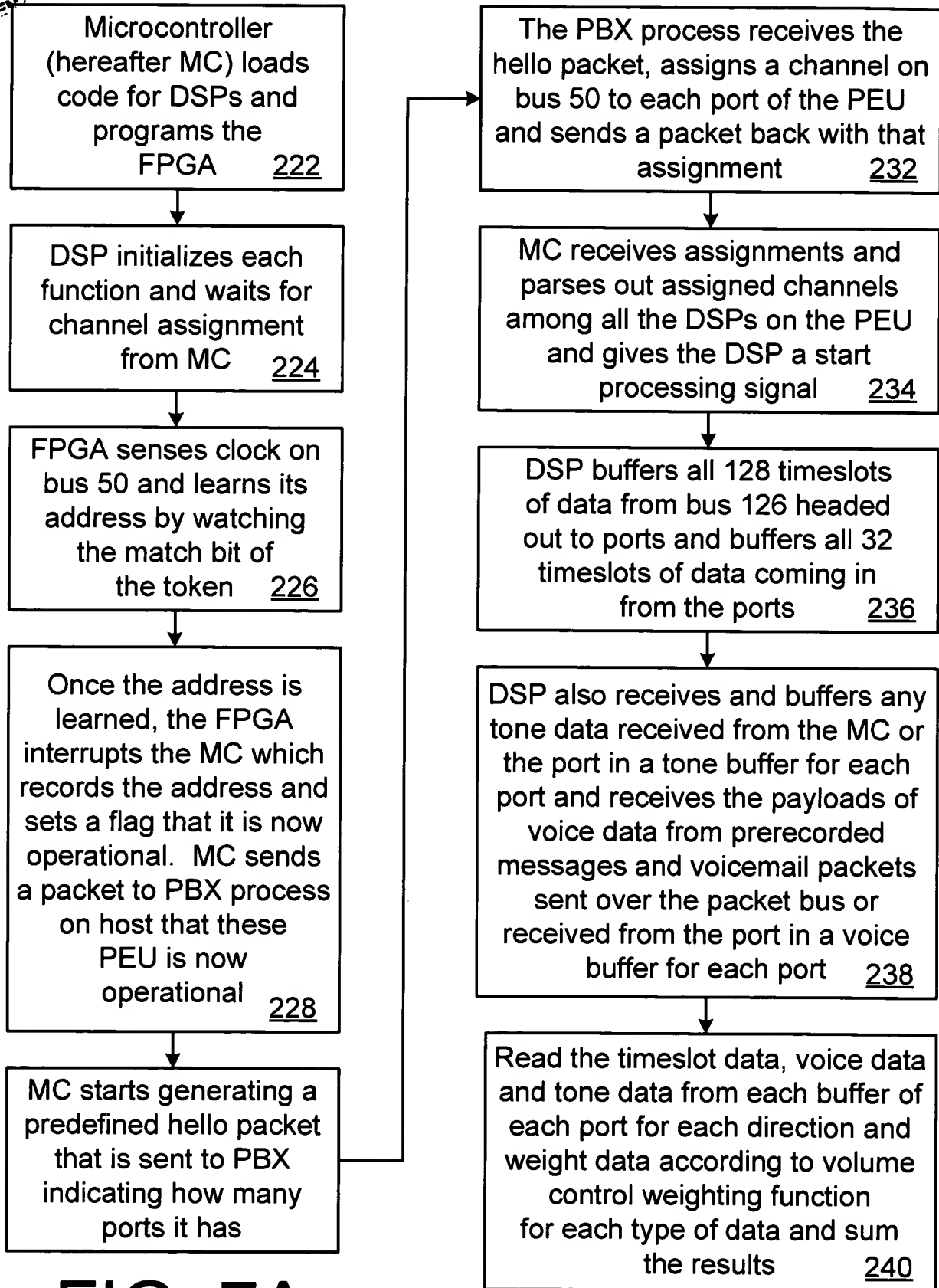


FIG. 7A

FIG. 7B



FIG. 7A

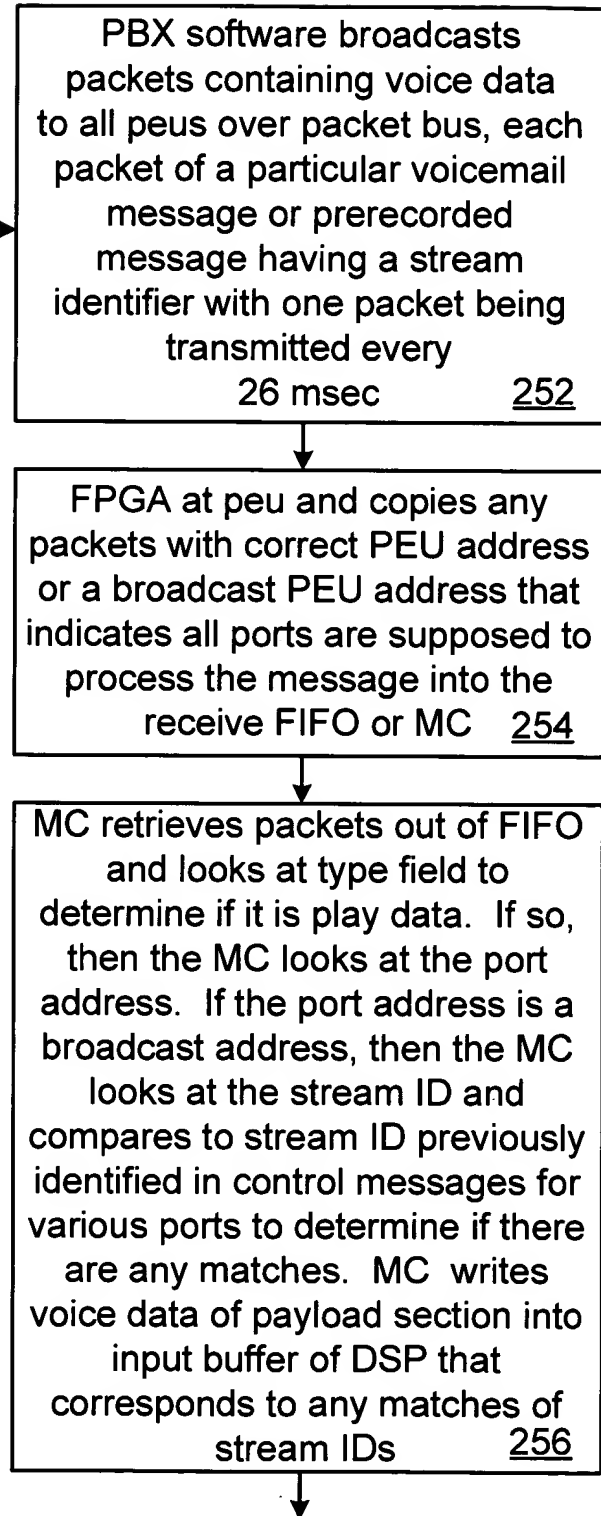
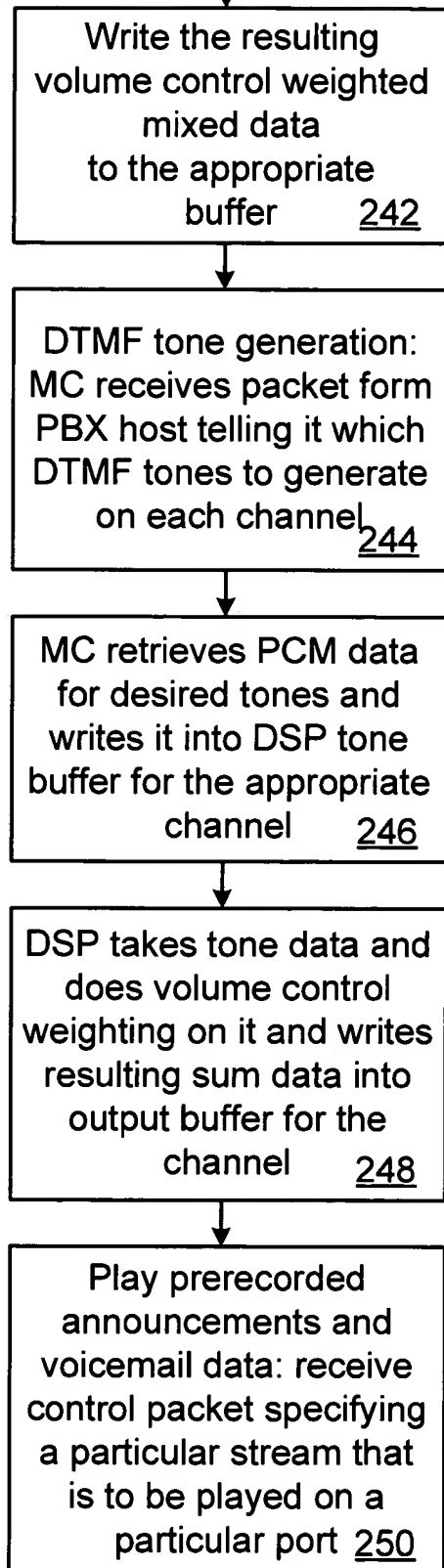


FIG. 7C

FIG. 7B



FIG. 7B

If the port address is not a broadcast address, then the MC writes the payload data from the packet into the input buffer of the DSP that corresponds to the port identified in the port address 258

DSP does volume control weighting and mixing of voice data with TDM data and tone data and writes summed data to output buffers of all ports on which message is to be played 260

DSP record data: data coming in from port is stored in TDM input buffer for each port. Data going out to port is stored in TDM output buffer. Volume control mix process reads TDM data traveling in each direction for port as well as packet data and tone data and weights each set of data in accord with weighting functions established by PBX software via control packets based upon user functionality requests 262

The summed volume control adjusted data is written into the record buffer of the DSP. Once 208 bytes have been accumulated, the DSP interrupts the MC. The MC reads the record data and packetizes it and stores it into transmit FIFO of FPGA. FPGA transmits packet over packet bus 264

DSP decodes caller ID data: MC detects first ring on any co port by polling the ring detector for all the ports and sets a status in the DSP to start transferring caller ID data. The DSP is constantly looking for caller ID data 266

DSP decodes incoming caller ID data, and when one byte has been received, interrupts the MC. The MC retrieves the caller ID data and verifies the checksum. Then the caller ID data is packetized and transmitted to the PBX software process. 268

The PBX process updates the attribute data of an object in memory created for this particular call with the caller ID data 270

FIG. 7D

FIG. 7C



FIG. 7C

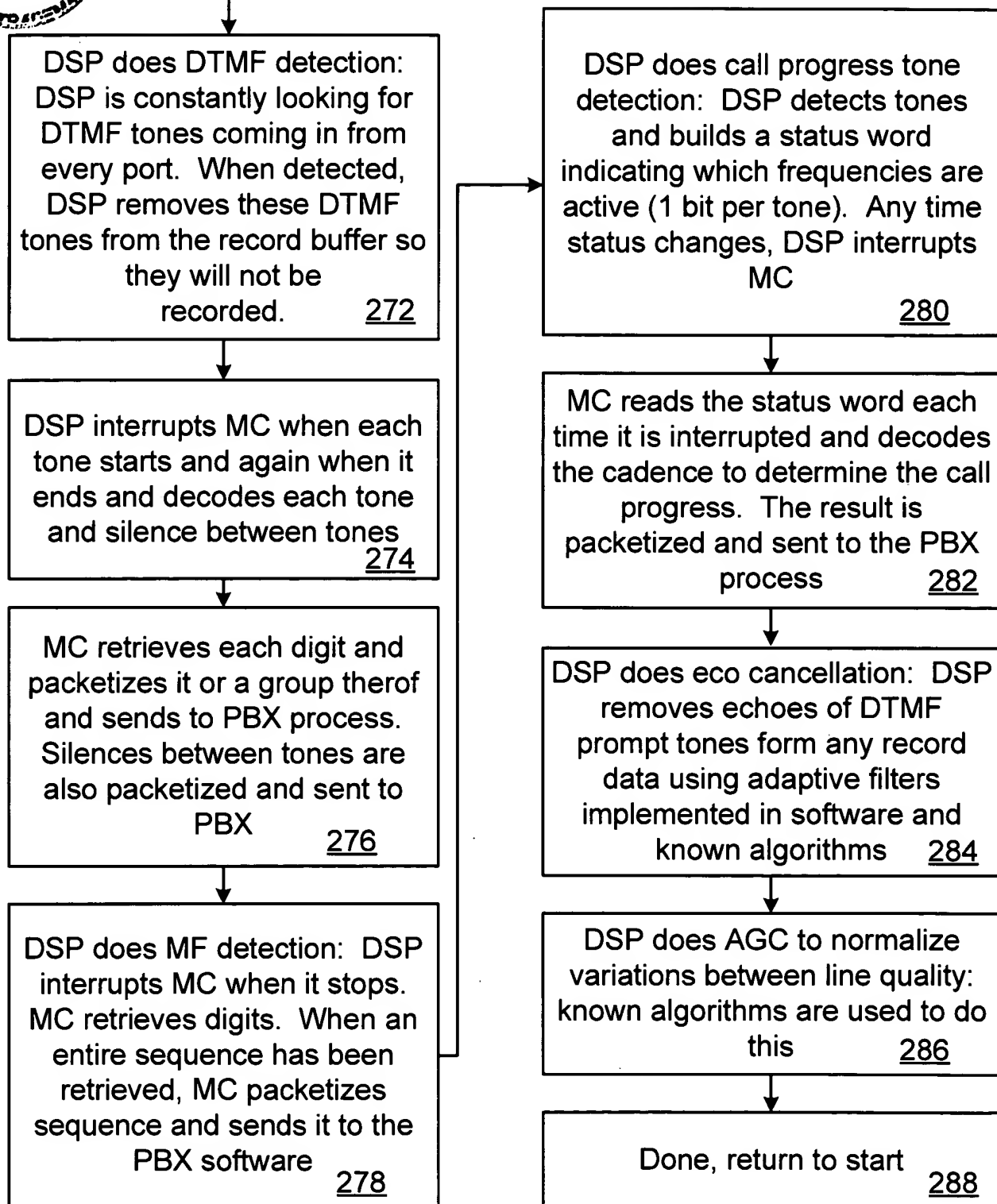
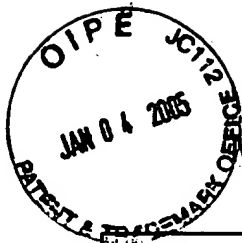


FIG. 7D



## MC - Telephone Interface Processing for Incoming Call

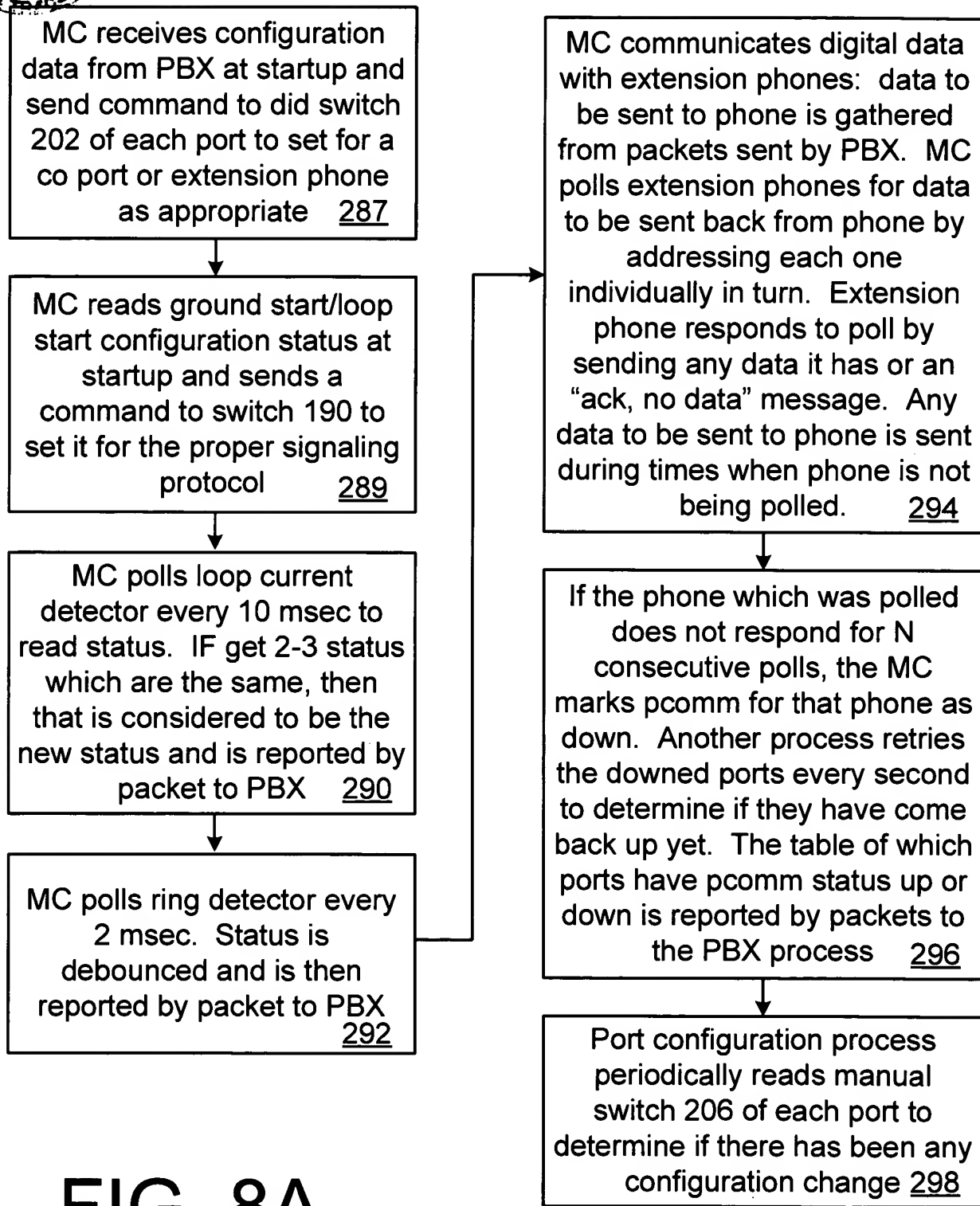


FIG. 8A

FIG. 8B



FIG. 8A

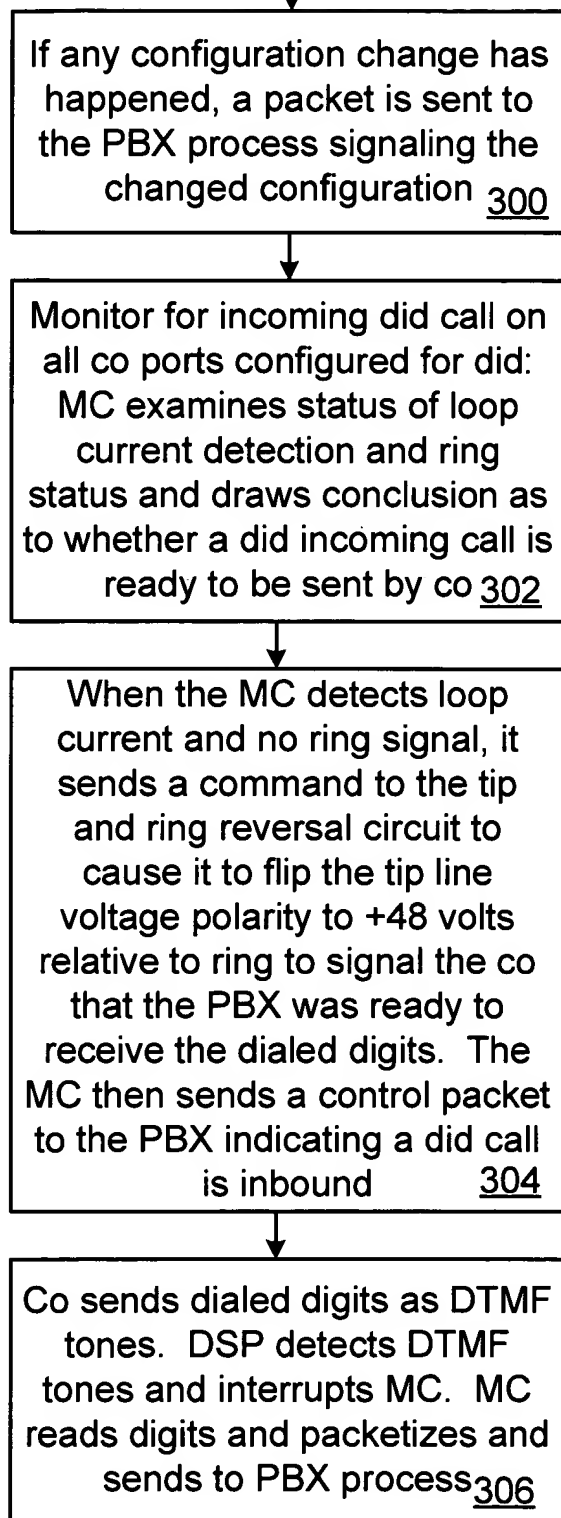


FIG. 8B

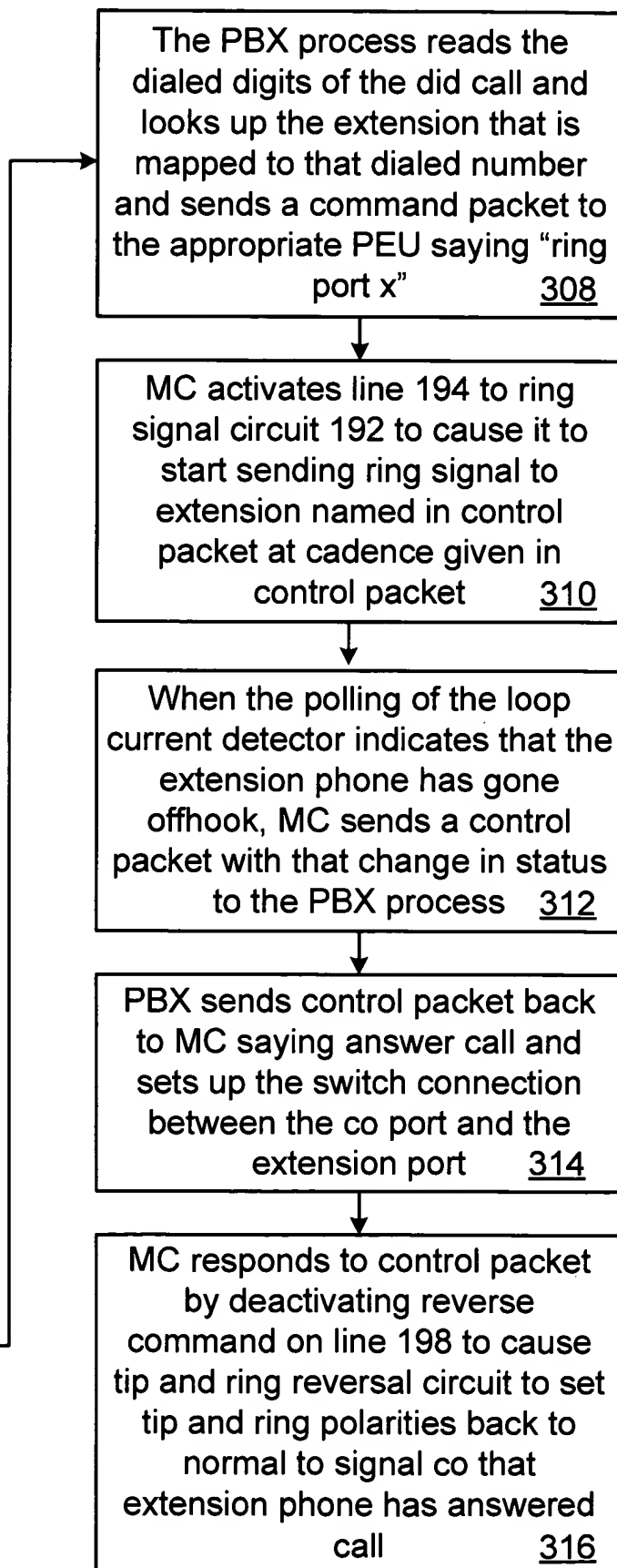


FIG. 8C

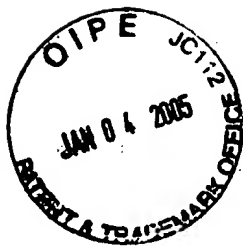


FIG. 8B

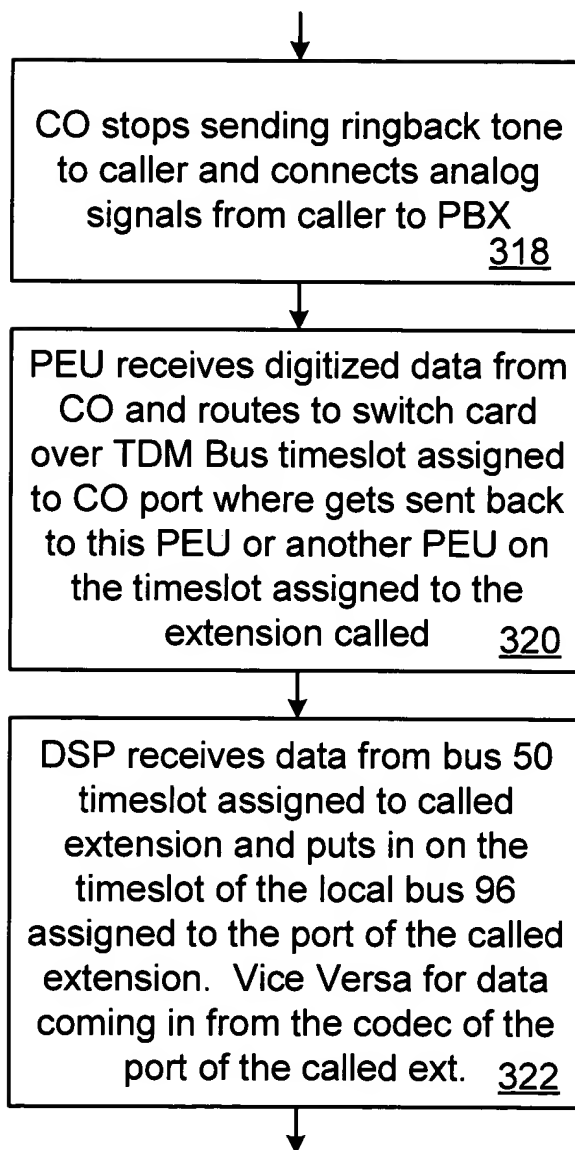


FIG. 9A

FIG. 8C



## MC - Telephone Interface Processing for Incoming Call

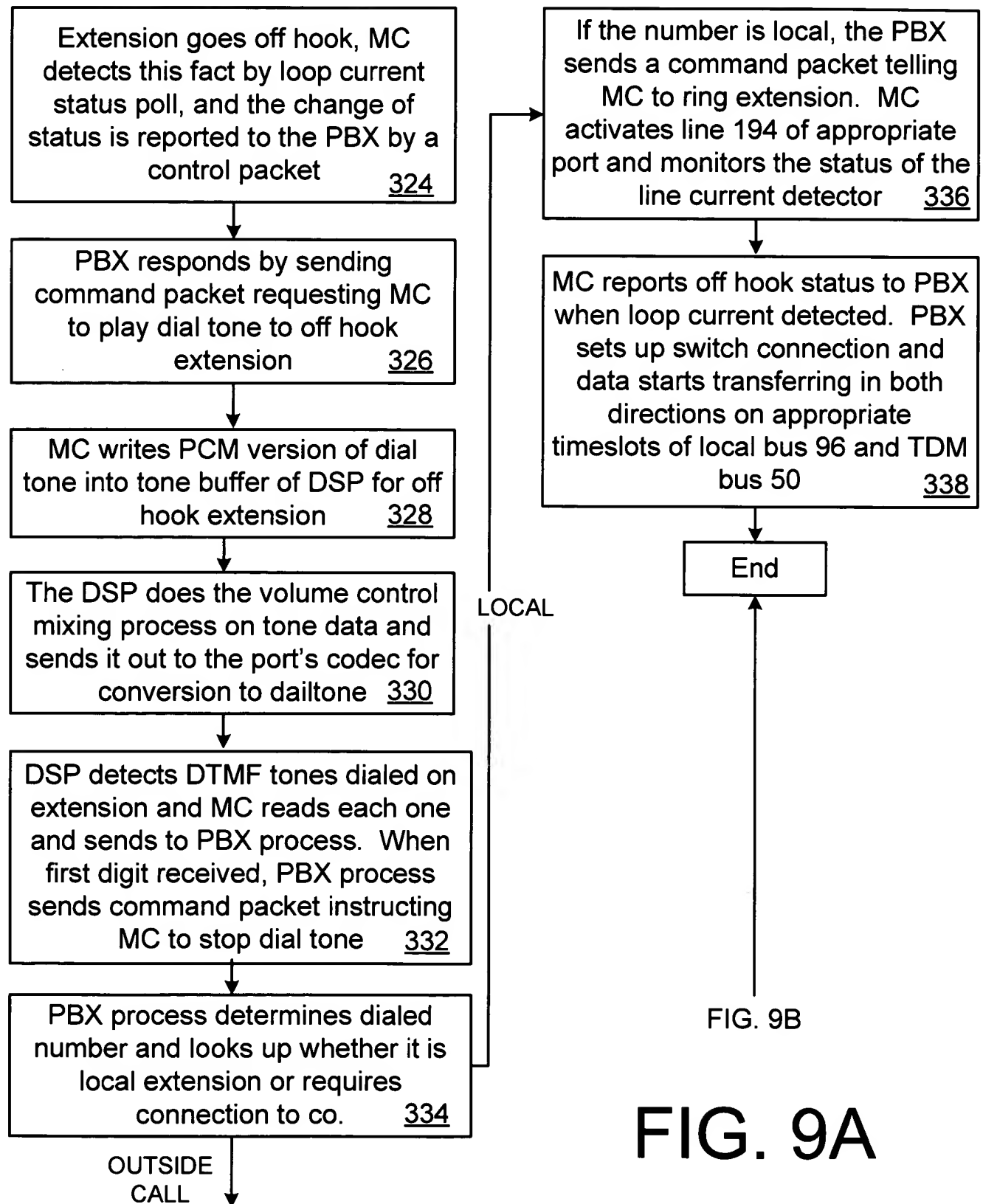


FIG. 9B

FIG. 9A



## OUTSIDE CALL

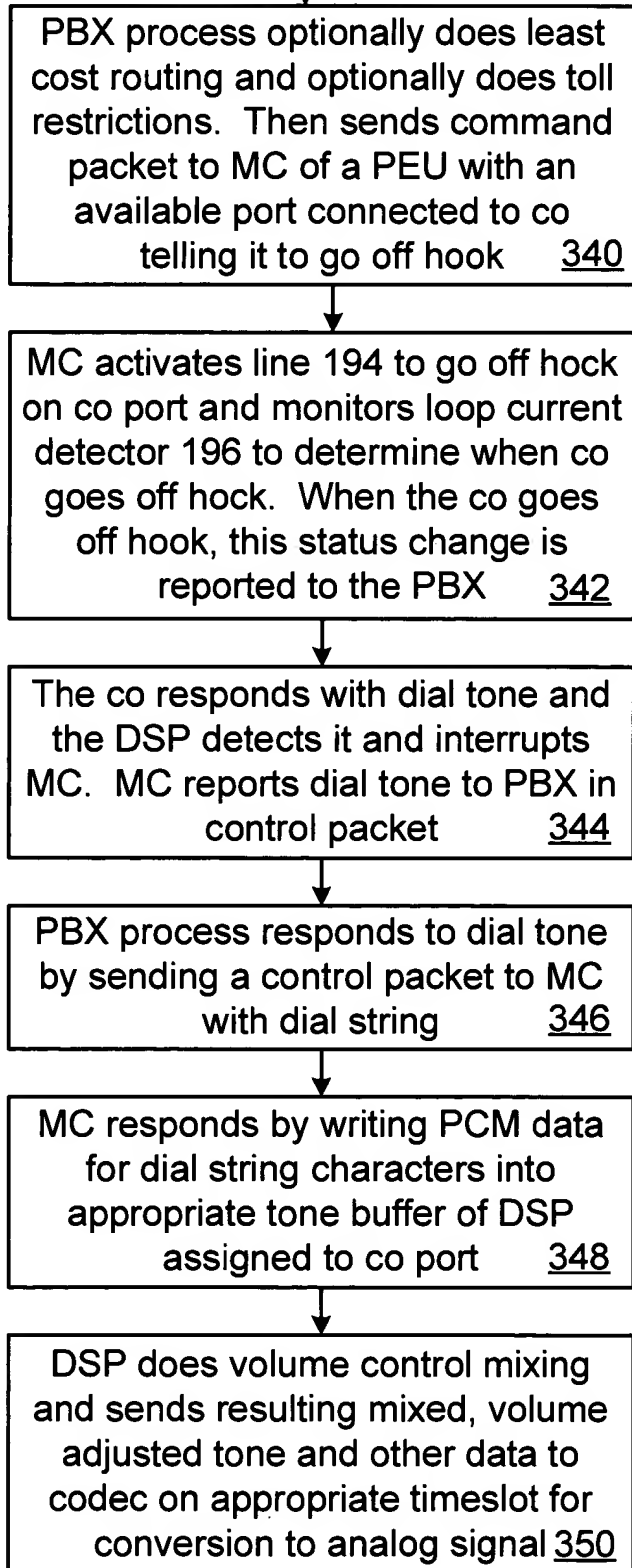
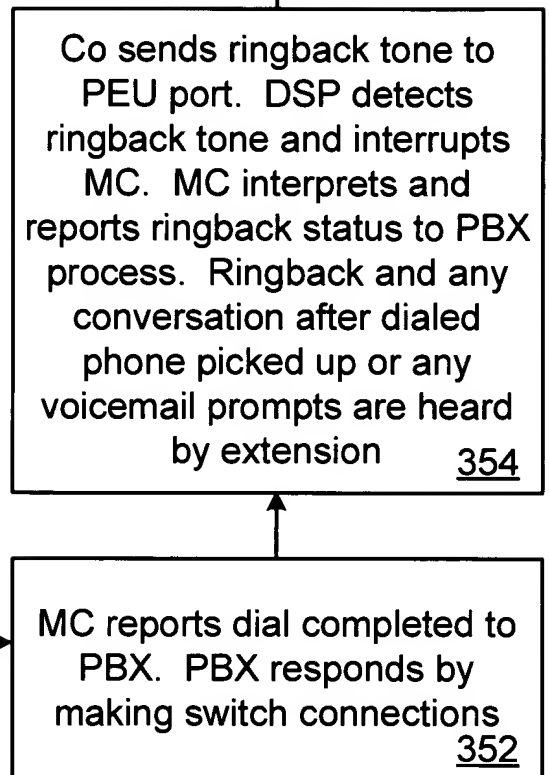
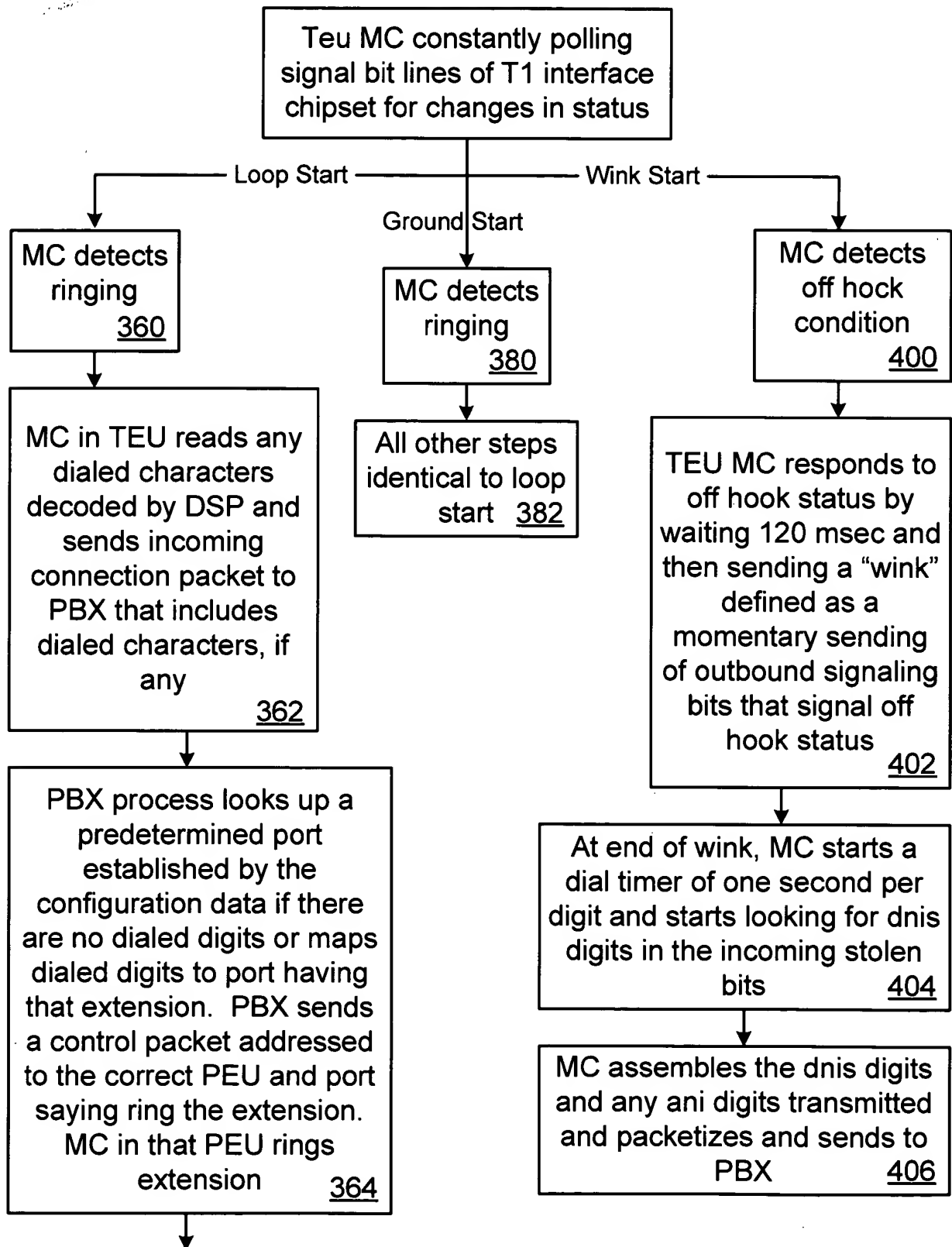


FIG. 9A





## TEU Processing for an Incoming T1 Call



# FIG. 10A



From FIG. 10A

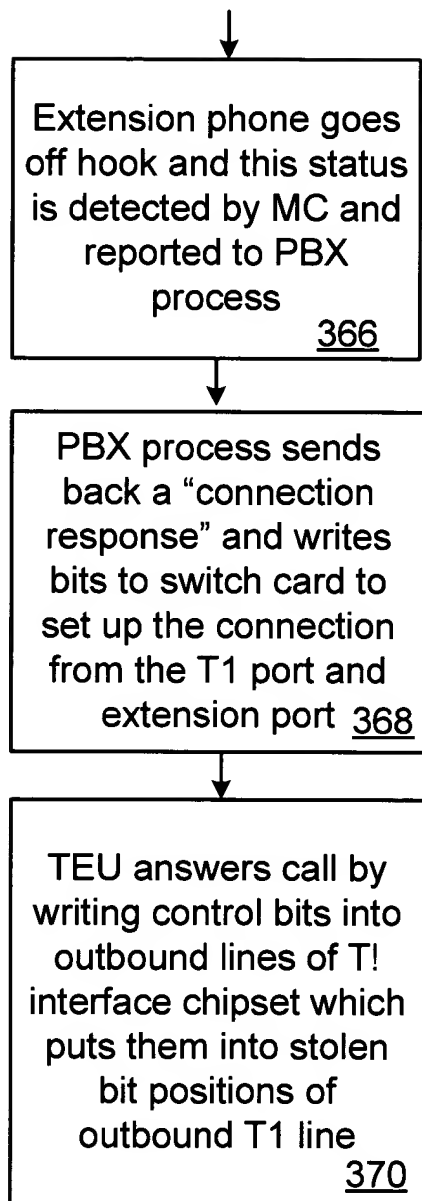
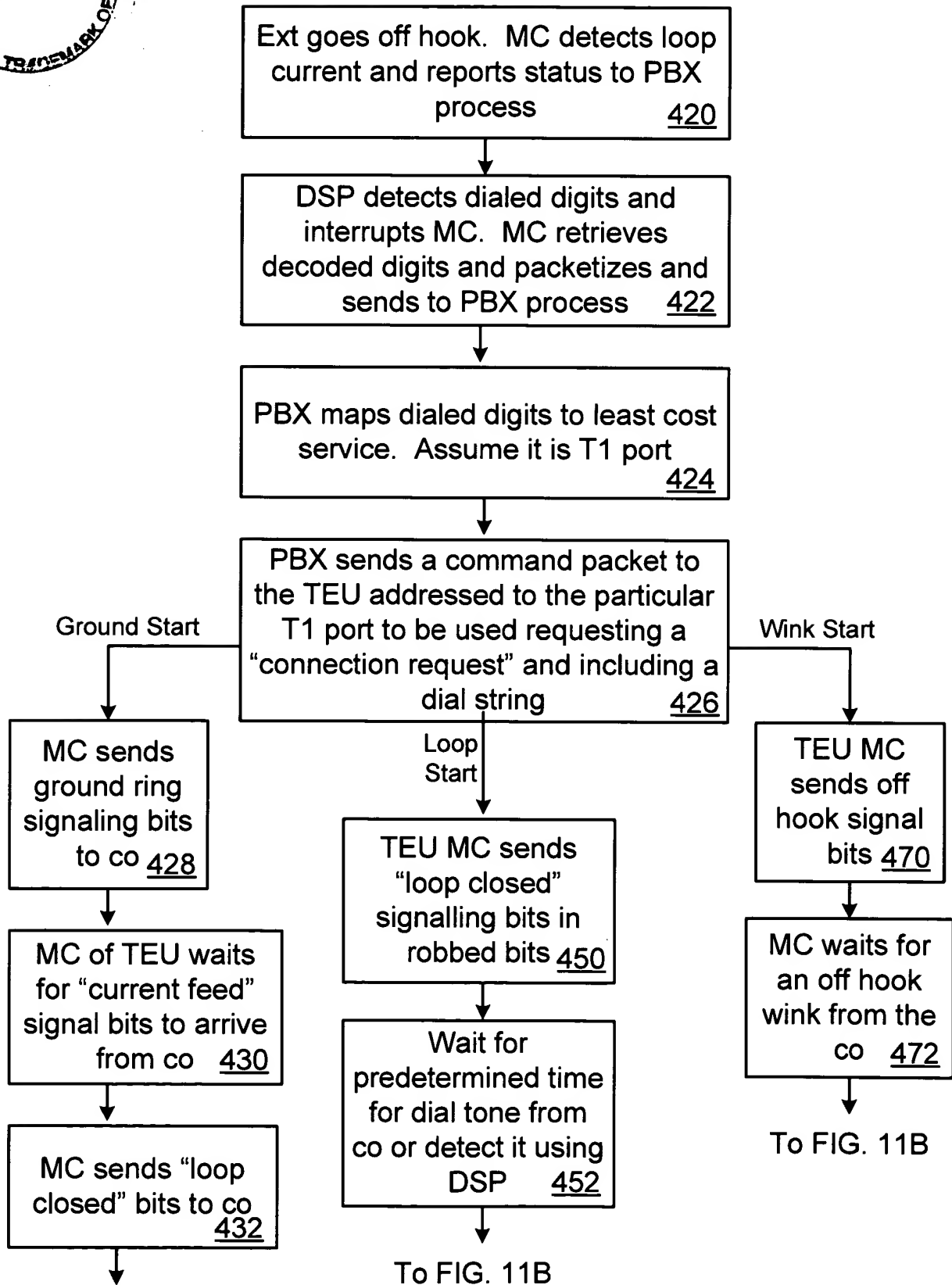


FIG. 10B



# T1 TEU Processing for Outbound Call



## FIG. 11A

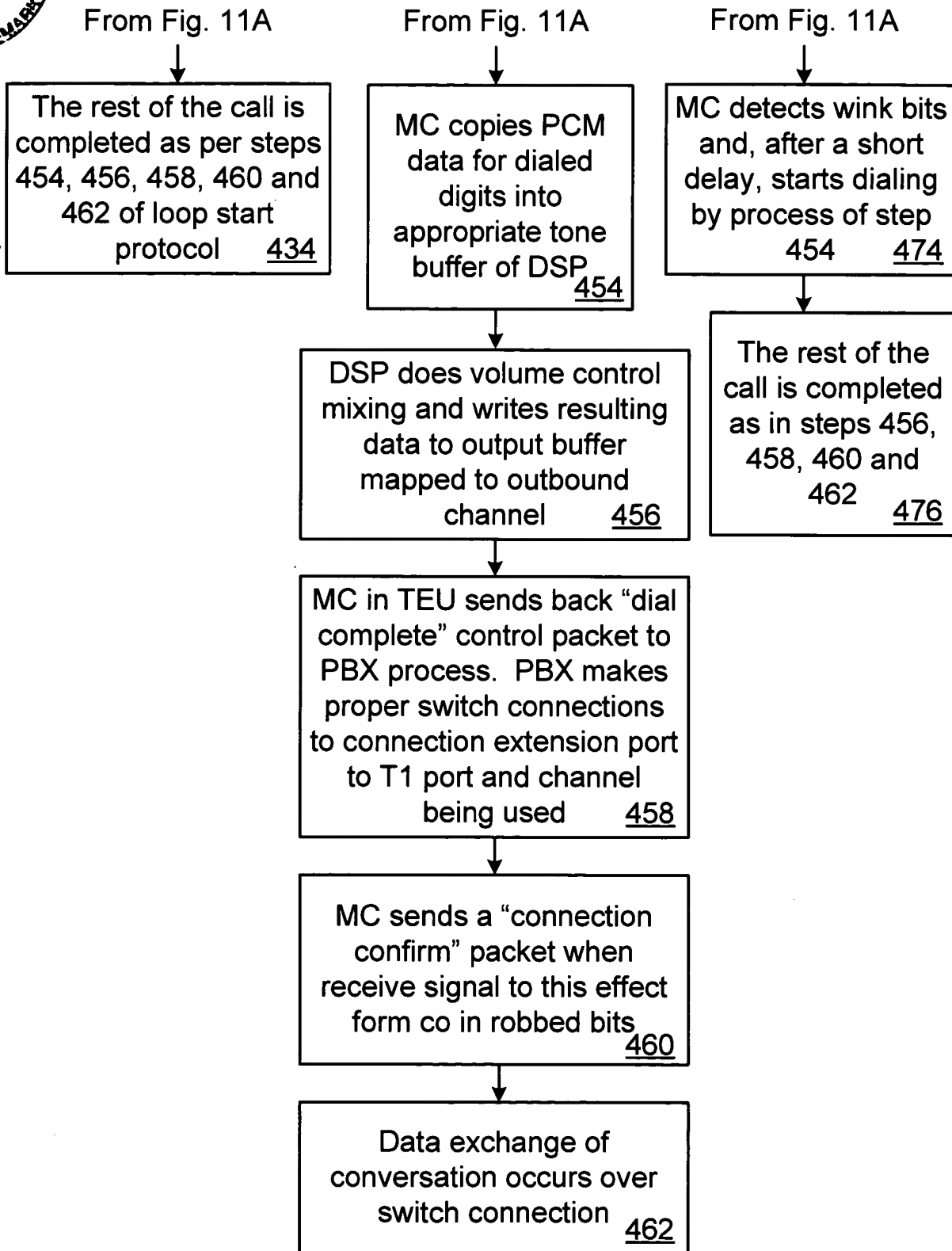


FIG. 11B



## Switch Card DSP Conferencing Process

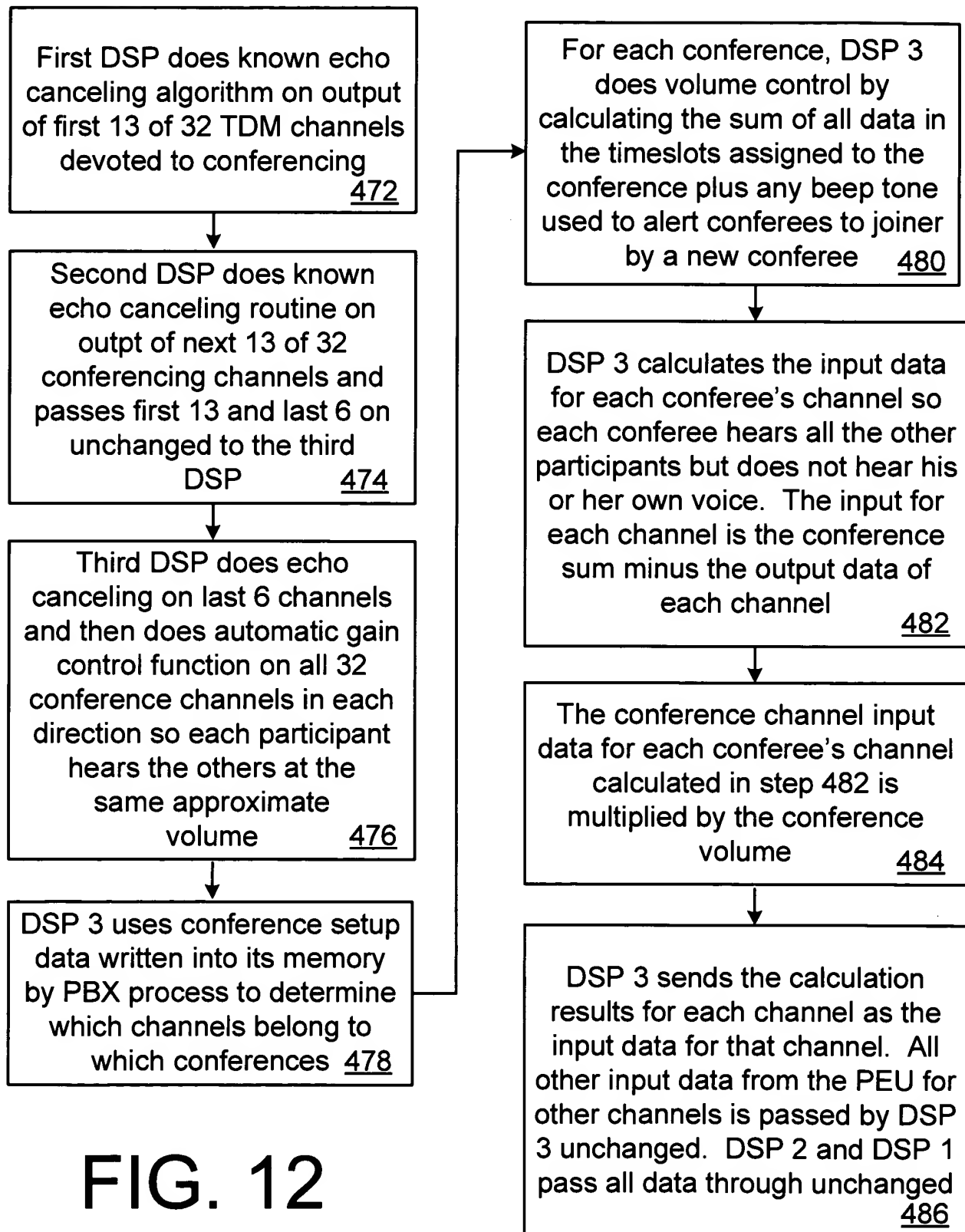


FIG. 12



## Analog Loop Start Protocol Process - CO Originates Call

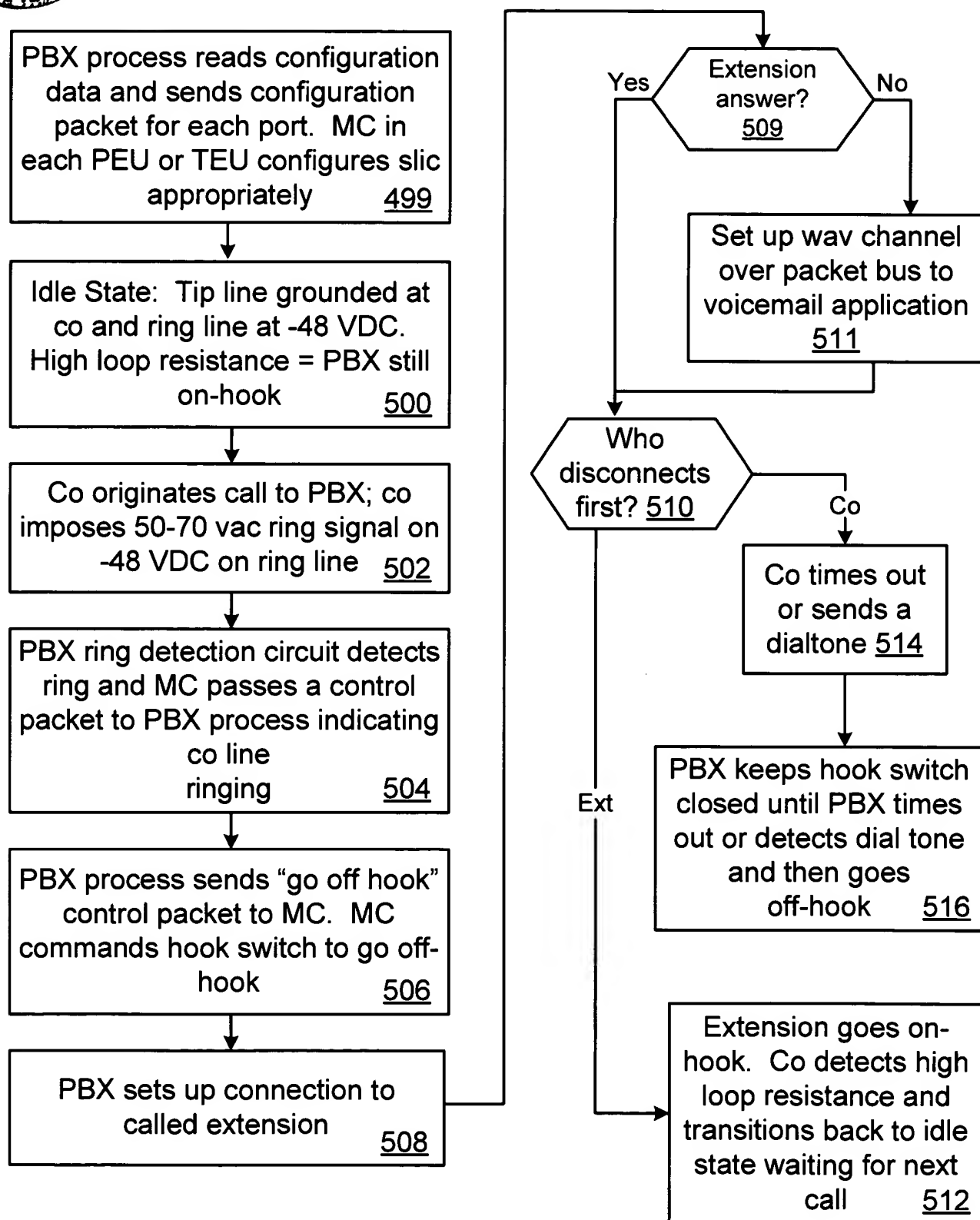


FIG. 13



## Analog Loop Start Protocol Process - PBX Initiates the Call

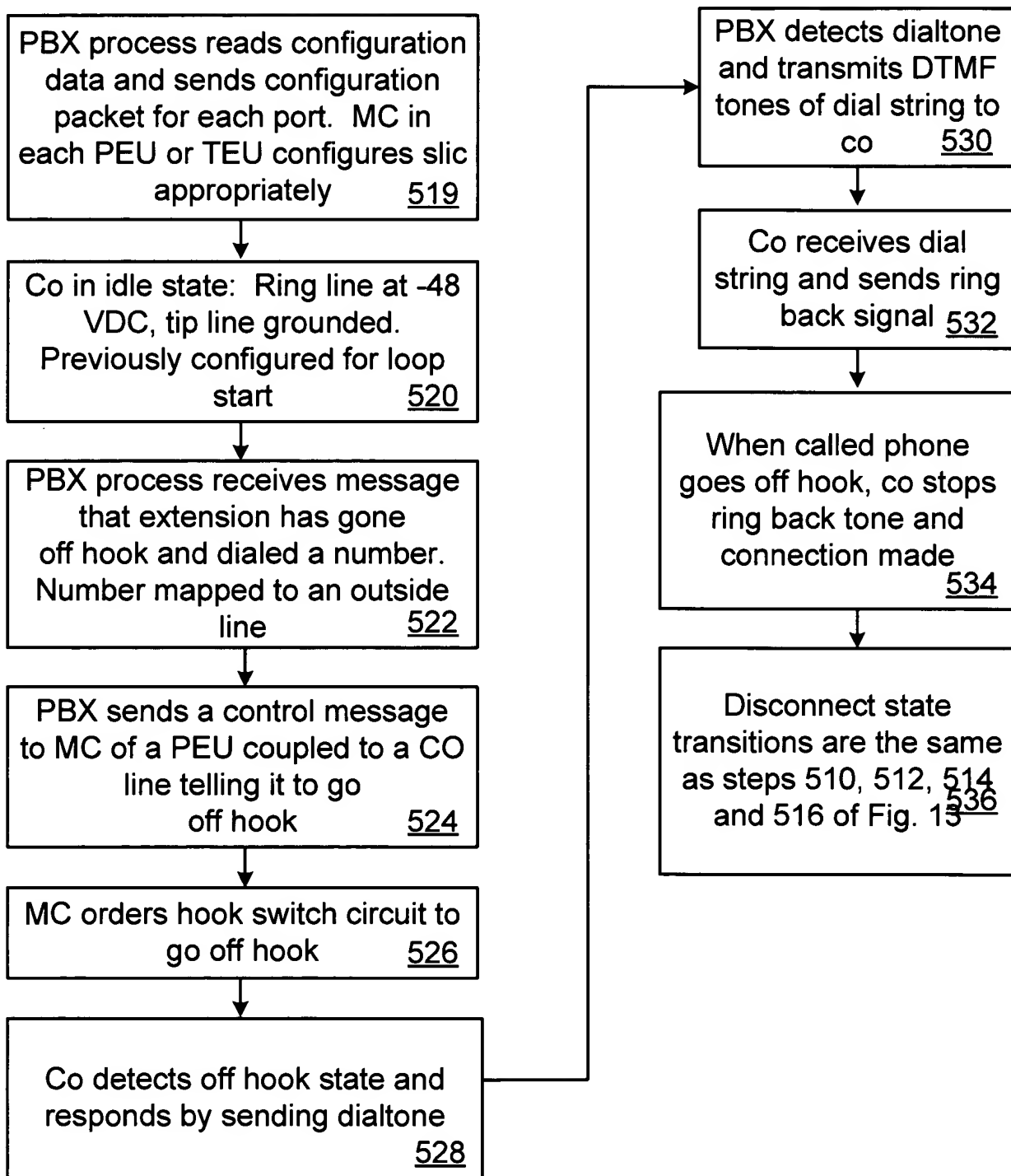


FIG. 14



# Ground Start Signaling Protocol - Analog Co Line - Co Originates Call

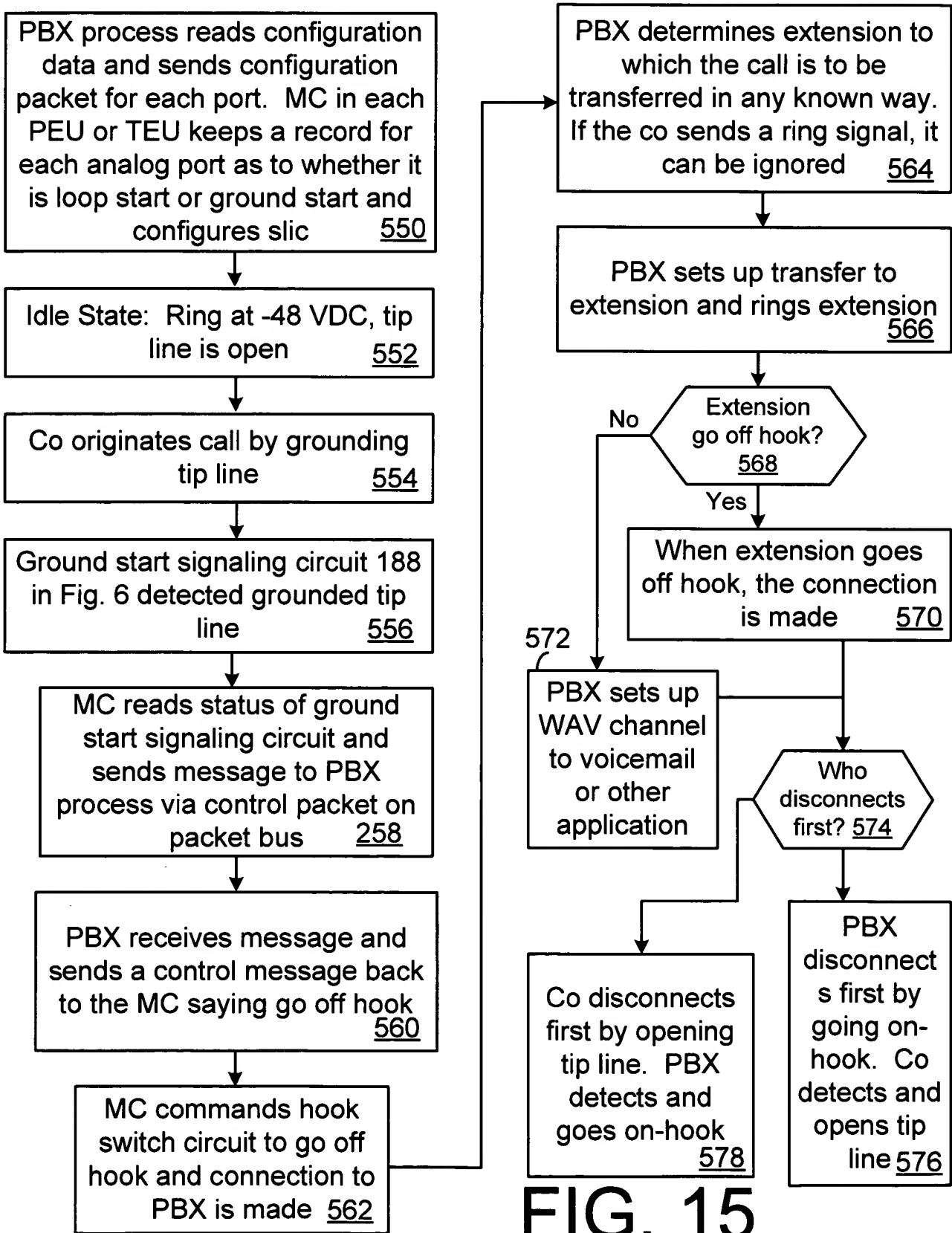


FIG. 15



# Ground Start Signaling Protocol - Analog Co Line - PBX Originates Call

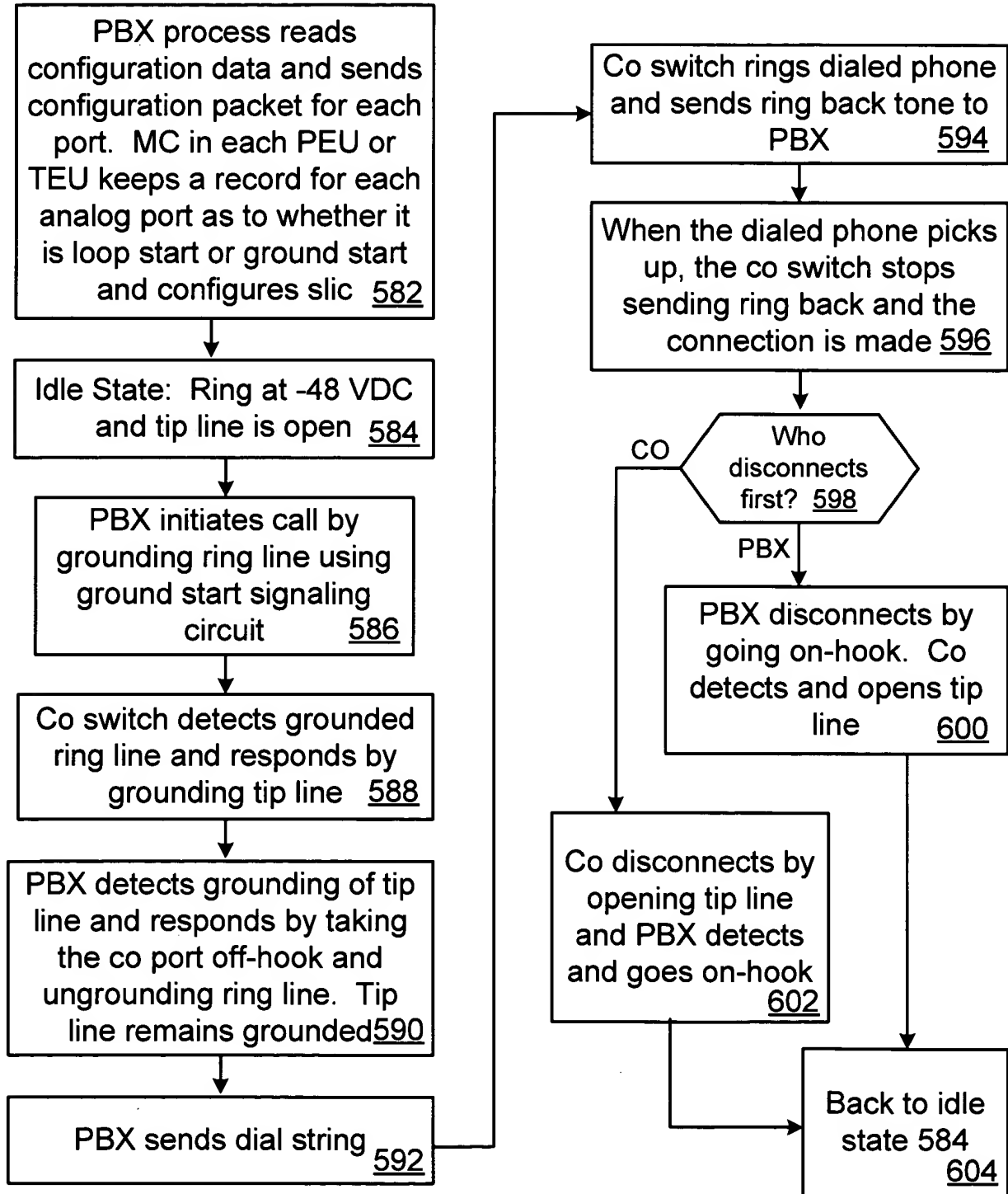


FIG. 16

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